What is claimed is:

1. A method of producing a probe having removed repetitive sequences comprising:

(a) providing a source nucleic acid molecule containing repetitive sequences;

(b) providing a driver nucleic acid molecule attached to a label and containing repetitive sequences that hybridize with the repetitive sequences of the source nucleic acid molecule;

(c) hybridizing the source nucleic acid molecule and the driver nucleic acid molecule in the presence of a molecule that binds the label of step (b) wherein the repetitive sequences of the source nucleic acid molecule hybridize with the repetitive sequences of the driver nucleic acid molecule to form a product;

(d) subtracting the hybridized repetitive sequences of the product of step (c) by extraction with a protein dissolving solution to remove the hybridized repetitive sequences from the product; and

(e) recovering the probe having repetitive sequences removed therefrom.

2. The method of Claim 1, wherein the recovering step (e) is performed by PCR with unique-sequence primers.

3. The method of Claim 2, wherein the unique sequences comprise DL1 and DL2, respectively.

4. The method of Claim 1, wherein the recovered probe of step (e) is processed one or more times through steps (a) to (e).

5. The method of Claim 1, wherein the source nucleic acid molecule, the driver nucleic acid molecule, or both are attached to a label.

6. The method of Claim 1, wherein the label is biotin and the molecule that attaches the label is avidin.

7. The method of Claim 1, wherein the extraction of step (d) is performed by phenol/chloroform.

8. The method of Claim 7, wherein the molecule that binds the label is coated on magnetic beads and after the phenol/chloroform extraction of step (d) the product is incubated with the magnetic beads and the repetitive sequences of the probe are subtracted by magnetic force.

9. The method of Claim 8, wherein the product is incubated with avidin-labeled magnetic beads in a binding buffer comprising about 1 M NaCl, PNM plus 2% BSA.

10. The method of Claim 7, wherein after extraction with phenol and chloroform, a precipitate is formed in a mixture by addition of acetate and alcohol.

11. The method of Claim 1, wherein the source nucleic acid molecule comprises amplified, microdissected chromosomal DNA.

12. The method of claim 1, wherein the source nucleic acid molecule comprises artificial chromosomes.

13. The method of Claim 1, wherein the source nucleic acid molecule comprises a gene probe for detection of cancer.

14. The method of Claim 13, wherein the cancer comprises leukemia, retinoblastoma, human Burkitt's lymphomas, ovarian cancer, uterine cancers, breast cancer, prostate cancer, or a combination thereof.

15. The method of Claim 1, wherein the label is introduced by nick translation or PCR.

16. A repetitive sequences removed probe (RSRP) produced by the method of Claim 1.

17. A nucleic acid molecule comprising a sequence represented by SEQ ID No: 2, SEQ ID No: 3, or a sequence substantially homologous to the SEQ ID No: 2, or SEQ ID No: 3.

18. A diagnostic test kit for detection of chromosomal abnormalities in a patient's sample comprising one or more repetitive sequences removed probes (RSRPs) that specifically detect chromosomal abnormalities and a detection agent comprising a detectable label.

19. The diagnostic test kit of Claim 18, wherein the patient's sample comprises blood, saliva, plasma, serum, lymphoid fluid, or cerebrospinal fluid.

20. The diagnostic test kit of Claim 18, wherein the repetitive sequences removed probes (RSRPs) are coupled to the detectable label.